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Burden of chronic kidney disease and its risk factors in Malaysia



The dialysis acceptance and prevalence rates in Malaysia have almost doubled in recent years. For instance, the dialysis acceptance was 1733 per million population (pmp) in 2004 increasing to 3156 pmp in 2013. Based on the National Renal Registry 2014, the total number of patients on dialysis has increased sharply from 6702 in 2000 to 31,637 in 2013, causing a serious strain on Malaysian health resources.

This increase in kidney failure is mainly due to the increasing incidence of diabetic kidney disease, which is responsible for 58.0% of new end stage renal disease patients. In fact, Malaysia had the highest incident rate of patients with diabetes entering renal replacement therapy [1]. The National Health and Morbidity survey in Malaysia shows that 32.7% of adults aged ≥ 18 years have hypertension (12.8% are known to have hypertension while 19.8% have hypertension that is as yet undiagnosed). Meanwhile, 15.2% (2.6 million) of adults aged ≥ 18 years are diabetic (7.2% are known to have diabetes while 8.0% have diabetes that is as yet undiagnosed). In addition, about 11.3% of patients with dengue viral infection experience acute kidney injury [2]. Studies have also shown metabolic syndrome to be an independent risk factor for chronic kidney disease and the older population (aged >65 years) are also at increased risk of renal impairment. Autoimmune disease and smoking also increase the risk of kidney diseases [3]. Environmental factors such as groundwater contaminated with microbial and toxic heavy metals can damage the kidneys as well, according to a recent study [4].

Since kidney disease in its initial stage is asymptomatic, patients tend to present late and with more aggressive symptoms of chronic kidney disease. This means that, to reduce the load of this disease in Malaysia, targeted screening and timely intervention is necessary. In addition, the Ministry of Health, together with the National Diabetes Institute, the Malaysian Society of Hypertension, and the Malaysian Society of Nephrology should intervene to increase patient awareness. Under the National Strategic Plan for Non-Communicable Disease (2010–2014) seven strategies including primary prevention and promotion; clinical management; increasing patient compliance; action with non-governmental organisation, professional bodies, and other stakeholders; monitoring, research, and surveillance; capacity building; and policy and regulatory interventions were implemented. However, more drastic strategies are needed to ensure optimal diabetic control and to reduce the renal disease burden in Malaysia by 2025.

Conflicts of interest

We declare no competing interests.

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